Effects of the Alternatives
Alternative A

The proposed Dry Cataracts National Natural Landmark would be open to mineral material removal. Excavation of alluvial gravel deposits would adversely affect geological features that illustrate natural history related to the Bonneville Flood.

Diversion of water from springs in the proposed Box Canyon National Natural Landmark could adversely affect natural history values related to the unique alcove ecosystem in the area. No special emphasis would be given to the protection of natural history values when considering resource use proposals.

Cultural Resources

Since any Bureau authorized or initiated action recognizes and accommodates cultural resources by virtue of our standard operating procedures (see Appendix H), the only activity which may damage these resources is unplanned public use. Such activities include unauthorized recreational vehicle use, artifact collection, and illegal excavation for materials and antiquities. The location of these activities is impossible to predict and may occur in spite of measures designed to exclude or limit them.

The following restrictions would protect cultural resources from inadvertent disturbance associated with vehicle or machine use and/or the hazards associated with increased public use such as illegal collection of artifacts. The restricted areas are divided into high density and low density cultural resource occurrence areas as described in Chapter 3. Although the exact location and significance of cultural resources is not known, it is expected that the more acres of high density occurrence areas where the following limitations apply, the greater the benefit to cultural occurrence. Limitations in low density occurrence areas are less likely to effect cultural resources. ORV closures would protect sites on 450 acres in high density cultural resource areas. ORV limitations would protect 345 acres in high density cultural resource areas.

Recreation

Recreation use would continue its present upward trend. Use would increase because of local population increases, increased leisure time, and a greater influx of people into the area for recreation purposes. The largest use increase would be experienced in big game hunting and float boating. Refer to Table 2-3 for the projected growth rates in various recreation activities. Scenic quality in the Cedar Fields area will continue to deteriorate because of increased ORV activity.

Although recreation use would increase, opportunities would generally decrease in quality. Recreationists would experience greater competition for recreation resources and recreation-related conflicts would increase.

Soils

Erosion would continue at an average 4.8 tons/acre/year. Of the 1,178,989 acres in the planning area, 36,509 acres (3 percent) would have a severe erosion problem by the end of 20 years. This slight decrease from present conditions would be due to the continuing beneficial effects of ORV closures and limitations in fragile areas, and 150 acres of seeding to stabilize sand dunes. *Soil productivity could be reduced on 519 acres adjacent to and downwind from land transfers developed for agriculture because of sand deposition from new farm fields.* Appendix I contains a discussion about changes in erosion rates and the equations used to estimate erosion rates.

Minerals and Energy

In Alternative A 340 acres of existing material sites would be lost to public use by transfer from Federal ownership. Loss of these material sites could cause considerable hardship and higher costs to highway departments and the public who depend upon these sites for mineral materials. Two thousand five hundred sixty acres of possible mineral material deposits could be lost by transfer.

Transfer could create problems of split estate ownership, a situation where the surface is privately owned, but the subsurface mineral rights are Federally owned. This could make mineral exploration more complicated, time consuming, and expensive.

Economic Conditions

Appendix J contains a detailed comparison of the economic effects of each alternative.

Grazing-Related Economic Effects. There would be a slight decline in income with this alternative as a result of a loss of *330* AUMs through land disposals. This would represent an income loss of *$6,138* annually, which is less than 1 percent of current income generated by BLM grazing use. Table 4-1 shows the effects of this income loss by size group. Grazing-related employment would not be affected by this alternative. There would be no secondary income or employment effects from this alternative. There are no range improvements planned in this alternative.

TABLE 4-1

LIVESTOCK INCOME AND EMPLOYMENT CHANGES
ALTERNATIVE A

Size Group	Proposed Grazing Use	Change in Use	Income Change	Employment Change
1	11,583	- 39	- $ 725	-0-
2	22,288	- 75	- $1,395	-0-
3	34,116	-116	- $2,158	-0-
4	29,577	-100	- $1,860	-0-
Total	97,564	-330	- $6,138	-0-

Grazing fees are distributed in the following manner: 50 percent to range improvement fund, 37 1/2 percent to Federal treasury, 12 1/2 percent to State of Idaho (who redistributes it to the county of collection for range improvements). Based on a $2 grazing fee (the average fee over the grazing years 1979 to 1983 was $1.96), the following grazing fee collection reductions would take place with this alternative:

Range Improvement Fund	- $330
Federal Treasury	- $247
State of Idaho	- $ 83
Total	- $660

The total capital value of the AUMs lost would amount to between $18,000 and $81,000. This is based on the values reported in Boly (1980) and Fowler and Gray (1980). This alternative would not place the viability of any ranches in jeopardy.

Recreation-Related Economic Effects. By the end of 20 years, the income generated by recreation-related activities would increase by $2 million a year over present levels. This would generally benefit the retail trade industry and would represent a 15 percent increase in earnings over the present levels. This includes both primary and secondary income effects.

There would be approximately 202 jobs added in recreation-related employment by year 20. This would be an increase of 15 percent over current employment in the retail trade sector.

Crop Agriculture-Related Economic Effects. There would be no agricultural development of DLEs or Carey Acts in Alternative A.

Economic Effects of Land Transfers. Except as stated previously (Grazing Related Economic Effects), the primary economic effect of land transfers would

be in the form of revenues or decreased operating costs to the Federal government. Assuming a benefit (either in revenues or decreased costs) of $100 per acre of lands transferred, then this alternative would have a land transfer benefit of $345,800.

Economic Effects of Fire Suppression. The basic economic effect of fire suppression is the cost to the government. It is estimated, based on the last three years average cost per fire, that annual fire suppression costs with this alternative would total $306,200.

Summary. This alternative would raise income over present levels by $2 million and employment by 202 jobs. The costs would be $306,200 annually. Although some minor grazing reductions would occur, no significant impacts to the economy would result from implementing this alternative.

Alternative B

Fire Management

A decrease of 5 percent in acres burned (1,700 acres) and 1 percent reduction in number of fires (1 fire) would occur in this alternative. The reductions would be primarily due to heavier grazing, which would account for about 3 percent of the decrease, and improved road maintenance, which would account for the other 2 percent reduction. The two proposed wilderness areas would pose no significant fire problems in this alternative.

Reductions would be averages measured on a long term basis. The number of fires and acres burned varies greatly from year to year.

Wildlife

Under this alternative, 57 of the 87 tracts under the existing Isolated Tract HMP would be available for transfer from Federal ownership. For analysis purposes, it is assumed that the 57 tracts would be transferred and converted to agricultural use. Nine other tracts would be dropped from the Isolated Tracts HMP, but would not be available for transfer from Federal ownership.

Where specific numbers of animals are listed below, we anticipate that 50 percent of the change would occur within 5 years, and the remaining 50 percent within 20 years. Refer to Appendix C "Methodology" for an explanation of how the numbers were derived.

Bliss Rapids Snail (Candidate Endangered). Under this alternative, the habitat of the snail would be afforded greater protection through designation of Box Canyon/Blueheart Springs and Vineyard Creek as ACECs. Even though other uses would be allowed, the type and degree of development would be limited so as not to deplete the habitat value for this species.

Ferruginous Hawk (Candidate Threatened). A population increase could be expected as a result of the placement of artificial nest structures. Good potential sites for nest structures would receive additional protection from disturbing influences of future developments if the Little Deer WSA is designated wilderness.

Swainson's Hawk (Candidate Threatened). An unknown population increase could be expected, because the 21 wildlife tracts remaining would be maintained in habitat suitable for this species. Artificial nest sites could potentially be provided on any or all of these tracts. However, by maintaining only a few of these tracts, chances of success in attracting breeding Swainson's hawks would be reduced.

Burrowing Owl (Sensitive). A net loss of five breeding pairs could be expected. The positive effect of artificial nest site placement and burrow protection on the 21 Isolated Tracts would be offset by the transfer of habitat and conversion to agriculture. Some transfers would probably result in improved habitat for this species by providing a greater prey base associated with certain agricultural crops. Transfers may result in the increased availability of suitable nest sites from creation of rock piles when new fields are opened.

Shoshone Sculpin *(Candidate Endangered)*. Under this alternative, the habitat of the Shoshone sculpin would be afforded a greater degree of protection through designation of Box Canyon and Blueheart Springs as an ACEC. Even though other uses may be allowed, the type and degree of development would be limited so as not to deplete the habitat value for this sensitive species. ACEC designation would give priority to managing for the needs of the species.

Ring-Necked Pheasant. No significant change in the population would be expected. Some existing habitat would be lost on transfer lands, but large

areas of public land that currently are not suitable for pheasants could become suitable where adjacent agricultural development occurs.

Gray Partridge (Hungarian Partridge). No significant change in the populations would be expected for the same reason as those cited for pheasants.

Sage Grouse. A net population increase of 1.5 percent could be expected. There would be an improved forb component in prescribed burn areas and in some seedings for livestock forage. These forbs would be made available to grouse by the creation of a mosaic of treated and untreated areas where forage and cover would be in proximity. Development and implementation of a HMP for sage grouse habitat would maintain high rates of winter survival and increase brood rearing success.

Pronghorn. A net loss of 55 animals could be expected as a result of transfer of land for agricultural development; much of which is historic winter range. Conversion to agriculture would further reduce fawning cover in some areas. The net loss of pronghorn would be greater, but development and implementation of a HMP for pronghorn winter habitat would help increase winter survival. Development and implementation of a summer range HMP would also benefit pronghorn.

Mule Deer. A net loss of 42 animals could be expected due to transfer of public land for agricultural development and loss of habitat for resident deer. The loss would be slightly offset by the implementation of the HMP for pronghorn winter range which would also benefit some wintering deer.

Hybrid Cutthroat/Rainbow Trout. Under ACEC designation, the spawning habitat of this unique population would receive greater attention than without such designation.

Non-Game Species. A net loss of 7,100 pairs of breeding birds is expected as a result of the transfer and conversion of rangeland to agriculture. The modest increase expected on Isolated Tracts and in brush protection areas is inadequate to offset this loss.

Livestock Forage

Grazing Management. This alternative would allow a total of *149,977* AUMs of forage for livestock. It is an increase of *52,085* AUMs (53 percent) from the five-year average actual use, or *842* AUMs (1 percent), from active preference (149,135 AUMs).

There would be *13,199* AUMs lost as a result of land transfer and public land devoted to other uses. Transfer of land from Federal ownership would significantly affect (more than 10 percent of active preference) *44* allotments and *74* permittees. Twenty-*nine* allotments would be lost completely because of land transfer.

Reductions amounting to 3,310 AUMs would be made on two allotments to bring them within their estimated carrying capacity. This would affect nine permittees.

Increased forage would be available in six allotments, for a total of 7,304 AUMs, as a result of past management and land treatment. On a long term, an additional 6,737 AUMs would be realized from land treatment.

Wildfire would result in an average annual temporary suspension of 5,768 AUMs. This is to allow adequate time for the vegetation to recover from the effects of fire.

An estimated 22,860 sheep AUMs would be converted to cattle AUMs. As a result, the amount of nonuse attributable to the continued decline of the sheep industry would be reduced.

There would be no significant impact on permittees in allotments proposed for new AMP or CRMP development. Six of these plans would be prepared to implement conversions of sheep to cattle. In these allotments, permittees would have to spend more time on maintenance of range improvements, but would spend much less time tending livestock. One of the plans would alter existing management and another would implement a new management system. In these allotments, permittees would have to spend some additional time on maintenance of range improvements and tending livestock. The remaining proposed AMPs or CRMPs would formalize existing management in an allotment.

See Table D-3 in Appendix D for allotment specific data.

Vegetation. A proposed 53 percent increase in grazing use in this alternative would result in increased utilization of available forage. This grazing pressure would be offset by seeding 55,500 acres and conducting brush control on 19,000 acres to increase the amount and availability of forage. Fencing, water developments, and grazing systems would also aid in supporting this level of use. Also, the number of acres burned each year is expected to drop 5 percent in this alternative. Priority for seedings and improvements to aid livestock distribution will be given to problem areas, causing a shift of

acreage from downward to stable trend. Improved livestock distribution and higher levels of use would increase grazing on upward trend areas, causing a shift of acreage from upward to stable trend. The dampening effects of cheatgrass on successional change would make plant community changes subtle and slow to occur (Robertson and Pearse 1945; Hironaka and Tisdale 1963; Young, Evans, and Major 1972). The projected trends for this alternative are:

Upward	19 percent
Stable	77 percent
Downward	4 percent

All seedings would be done in poor condition areas dominated by cheatgrass, causing a change from poor ecological condition to seeded on 7 percent of the planning area. Additional changes in condition classes should be precluded by higher livestock use. Competition from cheatgrass should also prevent significant change in plant composition (Robertson and Pearse 1945; Hironaka and Tisdale 1963; Young, Evans, and Major 1972). Condition classes would be as shown below:

Good	2 percent
Fair	8 percent
Poor	63 percent
Seeded	27 percent

Refer to Appendix D, "Projecting Ecological Condition and Trend" for an explanation of how the projections above were derived.

Land disposals would prevent designation of the Substation Tract and the Silver Sage Playa as ACECs. These tracts would be lost as relict study areas and a significant loss of scientific values would result.

Threatened and Endangered Plants. Proposed land treatments may have an effect on the Picabo milkvetch (Astragalus oniciformis), which is proposed for Federal listing as Endangered. Consultation procedures with U.S. Fish and Wildlife Service (FWS) regarding impacts to this species will be followed prior to any treatments. No detriment is expected from proposed stocking levels.

Lands

The acreages considered for *transfer from public ownership* under this alternative are shown in Table 2-2. The total area *available for transfer* includes 43,510 acres now under agricultural application. Allowances could occur on 5,330 acres of land under DLE application and 38,180 acres under Carey Act application. Denials would occur on 240 acres under DLE application and 240 acres under Carey Act application. Other *transfers* could occur through sales, exchanges, and R&PPs.